REMARKS

Claims 1-12, 14-19, and 21-58 were previously canceled. Applicants hereby amend claims 13 and 70, and cancel claims 63 and 75 without prejudice or disclaimer.

Claims 13, 20, and 59-62, 64-74 are currently pending, with claims 13, 64, and 70 being in independent form.

In the final Office Action ("OA") mailed May 21, 2009[1] the Examiner took the following actions:

- rejected claims 13, 20, and 59-75 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement;
- rejected claims 13, 20, 59-63, and 75 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite;
- rejected claims 13, 20, 60-62, 70, and 72-74 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,115,690 to Wong ("*Wong*") in view of Coalition for Secure and Trade-Efficient Borders, *Rethinking our Borders: A Plan for Action* ("*Coalition*"); and
- rejected claims 59 and 71 under 35 U.S.C. § 103(a) as being unpatentable over *Wong* in view of *Coalition* and in view of U.S. Patent Publ. No. 2003/0115133 to Bian ("*Bian*"); and
- rejected claims 63 and 75 under 35 U.S.C. § 103(a) as being unpatentable over *Wong* in view of *Coalition* and in view of U.S. Patent No. 6,085,186 to Christianson ("*Christianson*"); and
- rejected claims 64-67 under 35 U.S.C. § 103(a) as being unpatentable over *Coalition* in view of *Wong* in view of *Bian*; and
- rejected claims 68 and 69 under 35 U.S.C. § 103(a) as being unpatentable over *Coalition* in view of *Wong* in view of Houston Chronicle, *American*

[1] The Office Action may contain a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Responds / Terrorist Watch List no Match for Pair / Hijacking Suspect Eluded All Controls ("Gugliotta").

I. Rejection of claims 13, 20, and 59-75 under 35 U.S.C. § 112, first paragraph

In the Office Action, the Examiner rejected claims 13, 20, and 59-75 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

With regard to claims 13, 20, 59-63, and 70-75, the Examiner notes that each contain limitations for "computer-readable medium encoding instructions . . . wherein said instructions include . . . providing a set of core applications . . . providing a customer channel interface for interconnecting a set of customer channels. . . and the set of core applications . . . providing . . . management access interfaces for interconnecting . . . channel with the set of core applications . . . providing an enforcement database . . . transform the border management data into intelligence." OA at 2. The Examiner then concludes that "neither the specification nor the figures provide adequate disclosure of the capabilities of the computer-readable medium encoding instructions as claimed." OA at 2. The Examiner acknowledges that "software is inherent in the operation of some system components such as a work station, cell phone and pager, however, these inherent software applications do not disclose the capabilities of the claimed subject matter *such as providing interconnections or transforming data into intelligence*." OA at 3 (emphasis added).

Applicants respectfully disagree. For example, Figure 3 specifically illustrates a channel interface 335 between customer channels 330 and core applications 310 and a management and administrative interface 365 between management and administration

360 and core applications 310. Figure 4 also illustrates that logic 430 supports multiple electronic access channels 410 to disparate data resources 420. Also see, e.g., paragraphs [00059]-[00068]. Additionally, Applicants note that the specification discloses transforming data into intelligence in at least paragraphs [00009], [00016], [00023], [00044], [00056], [00057], [00060], [00075], [00080], [00084], [00085], [000135], [000136], [000138], [000139], [000141], [000142], and [000148], and Figs. 1-3, 5, and 12-14. Paragraph [00075], for example, discloses "analyzing information gathered from the other three quadrants to identify unusual activity and trends at the borders." Paragraph [00075] also discloses that activities within the investigation and analysis quadrant also include "investigation and analysis of irregular entry, exit, or other events or behaviors, identifying visitors who have stayed beyond their authorized stay deadline." Paragraph [00075] further discloses that "an investigator may use and investigative and intelligence toolset 542 . . . to further review and investigate a case." The foregoing disclosure demonstrates that the inventors had possession of the invention.

With regard to claims 59, 64, and 71, the Examiner states that each recites "analyzing data by applying neural networks, decision tree analysis, data recognition techniques, and rules-based algorithms to synthesize information, identify patterns, analyze historical information, and develop risk scores." OA at 3. The Examiner then concludes that "the specification does not disclose how the neural networks, decision tree analysis, data recognition techniques, and rules-based algorithms operate (in combination or singly) to synthesize information, identify patterns, analyze historical information, and develop risk scores." OA at 3. The Examiner specifically contends,

apparently referring to paragraph 84, "[t]hese recitations do not provide enablement for how one of ordinary skill in the art would make or use the invention." OA at 3.

Applicants disagree that the specification does not provide an enabling disclosure. Specifically, Applicants note that the specification provides an enabling disclosure for applying "neural networks, decision tree analysis, data recognition techniques, and rules-based algorithms to synthesize information, identify patterns, analyze historical information, and develop risk scores" as is currently recited by claims 59, 64, and 71 in at least paragraphs [00009], [00016], [00023], [00044], [00056], [00057], [00060]*, [00075], [00080], [00084], [00085], [000135], [000136], [000138], [000139], [000141], [000142], and [000148], and Figs. 1-3, 5, and 12-14. Applicants note that, at least based on the disclosure outlined above, one of skill in the art would be able to implement these techniques.

With regard to claims 63 and 75, the Office Action at page 4 states that each contains the limitation of "the shared security and integration open architecture further monitors access to the external data sources," which the Examiner contends is new matter. Applicants have cancelled claims 63 and 75, without prejudice or disclaimer, thereby rendering the rejection moot.

In view of the above, Applicants respectfully request that the Examiner withdraw the rejection or claims 13, 20, and 59-62, 64-74 under 35 U.S.C. § 112, first paragraph.

II. Rejection of claims 13, 20, 59-63, and 75 under 35 U.S.C. § 112, second paragraph

In the Office Action, the Examiner rejected claims 13, 20, 59-63, and 75 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner stated that the

terms "the users" and "the shared border management data the case data the individual data" in claim 13 and the term "the synthesized external data sources" in claims 63 and 75 "lack proper antecedent basis." OA at 4.

Although Applicants do not agree with the Examiner's relevant statements, Applicants have cancelled claims 63 and 75, without prejudice or disclaimer, and amended claim 13 to clarify the antecedent basis for the relevant identified terms, thereby rendering the indefiniteness rejections moot. Applicants note that claim 13 recites "at least one database storing border management data," and "access points and tools for sharing . . . border management data," prior to "the shared border management data." Applicants further note that claim 13 recites "an enforcement database storing case data and individual data," prior to "the case data and the individual data."

III. 35 U.S.C. § 103(a) Rejection of independent claims 13 and 70, and related dependent claims 20, 60-62, and 72-74

Claims 13, 20, 60-62, 70, and 72-74 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Wong* in view of *Coalition*. Applicants respectfully traverse this rejection.

The Examiner states that Wong discloses "a processor, database storing data, [and] computer-readable medium encoding instruction for implementing an architecture (C12; L55-64)." OA at 5. But the Examiner acknowledges that "Wong does not disclose a system or instruction directed to border management." OA at 6. The Examiner concedes that "Wong does not disclose the specific names of applications (process imports, process exports, investigation, entry processing, exit processing, form

submission and processing, case management or intelligence)...." OA at 5-6. The Examiner further acknowledges that Wong does not disclose "a database is named 'enforcement' or the specific descriptions of data as 'shared border management,' 'case' or 'individual.'" OA at 6. The Examiner erroneously characterizes such information as "nonfunctional descriptive data" and contends it "will not distinguish the claimed invention from the prior art." OA at 6.

Claim 13 is directed to a computer-based system for implementing a border management application architecture. The system of claim 13 recites "providing an enforcement database storing case data and individual data; [and] . . . intelligence applications used to transform the border management data into intelligence using the shared border management data and the case data and the individual data stored in the enforcement database." Clearly, the specific recited applications and data are essential to the purpose and function of the system of claim 13. The Examiner improperly seeks to divorce the recited applications and the recited data from the function of the invention.

Moreover, Wong fails to teach or suggest providing one or more management access interfaces for interconnecting one or more management access channels with a set of core applications, including an intelligence application, to thereby provide access points and tools for the sharing and access of border management data among the set of core applications. Wong also fails to teach or suggest a combination that includes an intelligence application used to transform border management data into intelligence using shared border management data and case data and individual data stored in an

enforcement database as is recited in claim 13. Accordingly, claim 13 is clearly patentable over Wong.

Coalition does not overcome the identified deficiencies of *Wong*. Nonetheless, the Office Action states that *Coalition* discloses "a set of core applications for standard border management functions"—citing bullet 2 on page 3; paragraph 5 on page 15 for "centralized applications processing"; and paragraph 11 on page 22 for "using technology to report and share intelligence." OA at 6. The Office Action states that *Coalition* discloses "a customer channel interface interconnecting the set of customer channels and the set of core applications"—citing paragraphs 5 and 7 on page 7. OA at 6. The Office Action further states that *Coalition* discloses "one or more management access interfaces interconnecting the one or more management access channels with the set of core applications"—citing the foregoing and paragraph 5 on page 15. OA at 6. The Office Action finally states that *Coalition* discloses "a database for sharing data that contains information from immigration, law enforcement and security agencies, international policing agencies and records of entries and exits of visitors and residents"—citing the paragraph 13 on page 16 through paragraph 6 on page 17. OA at 7.

In none of these Examiner-cited excerpts, nor elsewhere in *Coalition*, is there a teaching or suggestion of the system recited in claim 13. Applicants note that page 22, paragraph 11 is referring to the sharing of information "from shippers to both the Canadian and American governments." When viewed in context, page 15, paragraph 5, is referring to a "single processing centre in Canada" for visa applications and "Canadian visa offices abroad." Similarly, the excerpt of page 16, paragraph 13 through

page 17, paragraph 6 refers to a "database to screen visa applicants," but does not teach or suggest a database related to imports or exports. See *Coalition* bulleted paragraph 14 on page 16. These excerpts, and the general statements made on pages 3 and 7, are hardly a teaching of providing one or more management access interfaces for interconnecting one or more management access channels with a set of core applications, including a set of intelligence applications, to thereby provide access points and tools for the sharing and access of border management data among the set of core applications. Similarly, these excerpts, and the general statements made on pages 3 and 7, are hardly a teaching of an intelligence application used to transform the border management data into intelligence using the shared border management data and case data and individual data stored in an enforcement database.

Neither *Coalition* nor *Wong*, considered together or independently, teaches or suggests a medium encoding instructions recited in independent claim 13. For example, the cited references, considered together or independently, do not teach or suggest a combination that includes:

> providing a set of core applications for standard border management functions in a **shared applications architecture, wherein the set of core applications includes a process imports application, a process exports application, one or more investigation applications, an entry processing application, an exit processing application, and a form submission and processing application**; . . .
>
> providing one or more management access interfaces for interconnecting one or more management access channels with the set of core applications **to thereby provide access points and tools for the sharing and access of border management data among the set of core applications**; and
>
> **providing an enforcement database storing case data and individual data;**

> wherein the set of core applications further comprise a set of case management applications, wherein the set of case management applications further comprise a set of **intelligence applications used to transform the border management data into intelligence using the shared border management data and the case data and the individual data stored in the enforcement database**.

as recited in independent claim 13 (emphasis added).

In view of the above, the Office Action has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the prior art and the claimed invention. Consequently, the Office Action has failed to clearly articulate a reason why claim 13 would have been obvious to one of ordinary skill in view of the prior art. Therefore, a *prima facie* case of obviousness has not been established for at least the reasons discussed above and the Examiner should withdraw the rejection of amended independent claim 13 under 35 U.S.C. § 103(a).

Independent claim 70 recites a computer-readable medium encoding instructions for implementing a border management application architecture. Although different in scope from claim 13, claim 70 contains similar recitations to claim 13 and is therefore allowable at least for the reasons discussed above in connection with claim 13.

Additionally, *Wong* and *Coalition*, considered together or independently, do not teach or suggest a combination that includes "[border] intelligence [that] includes . . . denied passenger information, alerts, watch lists, case patterns, tips, expired visa and overstay information, investigation initiations, and alert list additions," as is recited in claims 60 and 72. The cited references do not teach or suggest a combination that includes "intelligence applications [that] communicate the intelligence to a communication device of an officer," as recited in claims 61 and 73. The cited

references also do not teach or suggest a combination that includes "providing a shared security and integration open architecture between [a] customer channel interface and [a] set of core applications [including a process imports application, a process exports application, one or more investigation applications, an entry processing application, an exit processing application, and a form submission and processing application], the shared security and integration open architecture monitoring access to the core applications" as is currently recited in claims 62 and 74.

Accordingly, Applicants respectfully request the withdrawal of the 35 U.S.C. § 103(a) rejection of independent claims 13 and 70, and related dependent claims 20, 60-62, and 72-74.

IV. 35 U.S.C. § 103(a) Rejection of dependent claims 59 and 71

Dependent claims 59 and 71 stand rejected under 35 U.S.C. § 103(a) as unpatentable over *Wong* in view of *Coalition* and Bian. The Examiner acknowledged that "Wong/Coalition does not disclose risk scoring or neural networks." OA at 9. Nonetheless, the Examiner states that Bian discloses "using a neural network and algorithm" and risk score calculation. OA at 9. The Examiner concludes that "[i]t is obvious to use data analysis tools, such as neural networks, algorithms and scoring, to prioritize the need to further investigate a movement." OA at 9.

Applicants respectfully traverse the rejection of claims 59 and 71 under 35 U.S.C. § 103(a) as being unpatentable over *Coalition* in view of *Wong* and in view of *Bian*. *Wong*, *Coalition*, and *Bian,* considered together or independently, do not teach or suggest a combination that includes "[a] set of intelligence applications [that] includes an information synthesis application and a risk scoring and analytics application that

applies neural networks, decision tree analysis, data recognition techniques, and rules-based algorithms to synthesize information, identify patterns, analyze historical information, and develop risk scores," as recited in dependent claims 59 and 71. For that reason, in addition to the reasons that related independent claims 13 and 70 are patentable, allowance of dependent claims 59 and 71 is therefore requested.

V. 35 U.S.C. § 103(a) Rejection of dependent claims 63 and 75

Claims 63 and 75 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Wong* in view of *Coalition* and Christianson. Applicants have cancelled claims 63 and 75, without prejudice or disclaimer, thereby rendering these rejections moot.

VI. 35 U.S.C. § 103(a) Rejection of independent claim 64 and related dependent claims 65-67

Claims 64-67 stand rejected under 35 U.S.C. § 103(a) as unpatentable over *Coalition* in view of *Wong* in view of *Bian*.

The Examiner acknowledges that "Coalition does not disclose monitoring the receipt and storing of data using a security and integration open architecture, analyzing by an intelligence engine, data to generate intelligence using various techniques to synthesize information, identify patterns, analyze historical information and develop risk scores or store the irregular individual activity (i.e., the product of the intelligence analysis) in the database or a shared infrastructure." OA at 11. The Examiner previously acknowledged that Coalition does not disclose "the integrated concepts that produce a single knowledge base or interconnectivity or selection access" (1/17/08 OA at 14), "a risk scoring and analytics application" (1/17/08 OA at 15; see also 12/23/08 OA at 17), and "the management/administration tool set or a client relationship tool set"

(1/17/08 OA at 11; 12/23/08 OA at 14). Nonetheless, the Examiner contends that "it would have been obvious to one of ordinary skill . . . to have included open architecture, as disclosed by Wong, in the system of Coalition for the motivation of integrating processes (including services) that result in a streamlined operation with data available in real-time." OA at 12. The Examiner also cites Bian for disclosure of "using a neural network and algorithm" and risk score calculation. OA at 12. Applicants respectfully traverse the rejection of claims 64-67 under 35 U.S.C. § 103(a) as being unpatentable over *Coalition* in view of *Wong* and in view of *Bian*.

First, regarding independent claim 64, none of *Wong*, *Coalition*, and *Bian*, considered together or independently, teaches or suggests the "computer-implemented method for implementing an integrated border management system for managing individual and trade border transactions" of independent claim 64. For example, the cited references, considered independently or in combination, do not teach or suggest a "border management knowledge base" storing "individual border transaction requests" and "trade border transaction requests", "individual entry data and trade import data," and "irregular individual and trade border transaction activity." Coalition, the only reference with border management disclosure, at best suggests a database directed to travellers and a separate database directed to shipments of trade goods. See, e.g., Coalition at 8 ¶ 10 (bulleted).

Also, none of the cited references teach or suggests "monitoring the receipt of the individual border transaction request and trade border transaction request, the storing of the requests in the border management knowledge base, the receipt of the individual entry data and trade import data, and the storing of the individual entry data

and trade import data in the border management knowledge database using a security and integration open architecture" as recited in claim 64.

The cited references do not teach or suggest much less "analyzing, by an intelligence engine, at least one of the individual entry data, the trade import data, the individual border transaction request, and the trade border transaction request stored in the border management knowledge base to generate border intelligence for detecting irregular individual and trade border transaction activity, wherein the analyzing includes applying neural networks, decision tree analysis, data recognition techniques, and rules-based algorithms to synthesize information, identify patterns, analyze historical information, and develop risk scores," as is recited in claim 64.

The unique combination of claim 64 is absent from the cited references, and allowance of claim 64, as well as dependent claims 65-67, is therefore requested.

VII. 35 U.S.C. § 103(a) Rejection of dependent claims 68 and 69

Claims 68 and 69 stand rejected under 35 U.S.C. § 103(a) as unpatentable over *Coalition* in view of *Wong* in view of *Gugliotta*. The Examiner acknowledges that *Coalition* does not disclose "storing the record of the denial [of entry] in the database." OA at 14. Neither *Wong* nor *Gugliotta* suggest storing such a denial in a database, and the Examiner does not suggest that either reference does. OA at 14. Instead, the Examiner simply states, without citing any support, that "[i]t is obvious to expand the record keeping to record a denial of entry." OA at 14. The Examiner cited no support for that statement because no support for that statement is available: It is novel and non-obvious to "stor[e] a record of the denial [of entry] in the . . . database," as recited in dependent claims 68 and 69. For that reason, in addition to the reasons that

independent claim 64 is patentable, allowance of dependent claims 68 and 69 is therefore requested.

VIII. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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